



August 28, 2020

Rear Admiral Thomas G. Allan, Jr.  
Commander  
U.S. Coast Guard First District  
408 Atlantic Avenue  
Boston, MA 02110

Re: [Docket USCG-2020-0278](#)  
Submitted via <http://www.regulations.gov>

Dear Admiral Allan:

In response to the *Federal Register* notice of study<sup>1</sup> published by the U.S. Coast Guard (USCG) on June 29, 2020, the American Wind Energy Association<sup>2</sup> (AWEA) and the New York Offshore Wind Alliance<sup>3</sup> (NYOWA) appreciate this opportunity to provide comments regarding the Northern New York Bight Port Access Route Study (NNYB PARS).

Navigation safety is a priority of the U.S. offshore wind industry. AWEA, NYOWA and our members strongly believe that offshore wind in the U.S. can be constructed and operated in ways that are compatible with mariner safety and safe vessel navigation. The ability to balance these interests, without sacrificing either, has been demonstrated globally. In the U.S., the ability to navigate safely around energy infrastructure in the ocean has also been demonstrated in the Gulf of Mexico.

To follow is a summary of the main points and recommendations AWEA and NYOWA address in more detail in the balance of these comments:

- **Need to balance stakeholder interests.**
  - AWEA and NYOWA strongly believe that robust deployment of offshore wind is entirely compatible with safe vessel navigation and urge the USCG to find a reasonable balance as directed by statute and consistent with congressional and Administration efforts.

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<sup>1</sup> Federal Register, Vol. 85 No. 125, pages 38907-38910, available at: <https://www.govinfo.gov/content/pkg/FR-2020-06-29/pdf/2020-13901.pdf>

<sup>2</sup> AWEA is the national trade association representing a broad range of entities with a common interest in encouraging the expansion and facilitation of wind energy resources in the United States, including offshore wind. AWEA's more than 1,000 member companies include wind turbine manufacturers, component suppliers, project developers, project owners and operators, financiers, researchers, utilities, marketers, customers, and others. For more information, see: [www.awea.org](http://www.awea.org).

<sup>3</sup> The New York Offshore Wind Alliance (NYOWA) is a diverse coalition of business, environmental, labor and community organizations with a shared interest in promoting the responsible development of offshore wind power for New York. NYOWA is a project of the Alliance for Clean Energy New York (ACE NY). For more information, see: [www.nyowa.org](http://www.nyowa.org)

- **Navigation concerns were considered when lease areas were designated; cooperative solutions needed.**
  - BOEM, based on input from the USCG, substantially considered navigation concerns when designating the lease area and the draft wind energy areas (WEAs) in the study area, with BOEM removing several proposed lease blocks from the areas because of USCG and other stakeholder input.
  - As a result, AWEA and NYOWA recommend that the USCG work with BOEM and project developers on any specific measures needed to ensure safe navigation via project specific navigation safety risk assessments (NSRAs) and construction and operation plan (COP) reviews.
- **Existing routing measures in the New York Bight are sufficient.**
  - Given the multiple routing measures already in place and the quality of commercial vessels and proficiency of their crews as recognized by the USCG, and their demonstrated ability to repeatedly and safely navigate the crowded confines of New York Harbor and the Hudson River, the more open waters of northern New York Bight should be able to accommodate this traffic without new routing measures even with the presence of offshore wind farms.
- **Vessel data analysis, including comparisons with similar waterways in Europe, backs up the point that existing routing measures in the New York Bight are sufficient.**
  - Independent vessel data analysis<sup>4</sup> done for the New York State Energy and Research Development Agency (NYSERDA) found the majority of vessels operating in the study area were cargo vessels (51%) with tankers second (34%). The remaining vessels are other, i.e. USCG, military, dredging, diving vessels etc. (8%), tug and tow (3%), passenger (1.6%) and fishing (1.4%).
  - The report found cargo vessels, tankers and passenger vessels largely use existing fairways and traffic separation schemes (TSSs). And tug and tow traffic is far and away most dense along the coastlines.
  - Therefore, AWEA and NYOWA believe the existing fairways and TSSs are sufficient to ensure safe vessel navigation through the New York Bight.
  - To the extent the Coast Guard believes transit lanes are needed to facilitate commercial fishing vessel traffic within and through the call areas, AWEA and NYOWA request that the lanes avoid cutting through the primary and secondary WEAs proposed by BOEM. We believe there is sufficient space to navigate through the call areas without further restrictions.
  - AWEA and NYOWA request that the USCG work with Equinor and BOEM to assess any lease-area specific vessel navigation needs through the NSRA and COP review processes rather than proposing something unilaterally through the NNYB PARS that would negatively impact this lease area.

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<sup>4</sup> Available at: <https://www.nyserdera.ny.gov/-/media/Files/Publications/Research/Biomass-Solar-Wind/Master-Plan/17-25q-Shipping-and-Navigation.pdf>

- **Given the evidence that existing measures are sufficient to ensure safe vessel navigation, AWEA and NYOWA urge the Coast Guard to support BOEM in moving forward with finalizing additional lease areas in the New York Bight.**
- **USCG needs to reconcile NNYB PARS and fairways rulemaking.**
  - AWEA and NYOWA urge the USCG to reconcile the fairways rulemaking with the NNYB PARS. In particular, AWEA and NYOWA urge the USCG to consider holistically whether vessel routing measures that may be under consideration in the NNYB PARS eliminate or reduce the need for the proposed fairway through the New York Bight call areas in the rulemaking and vice versa.
- **USCG should reconsider recommended buffers based on European and Gulf of Mexico experience.**
  - According to a report done for NYSERDA, “the most common distance between a wind farm and shipping lane is approximately 1 nm.”
  - AWEA separately calculated the proximity of several UK offshore wind farms to deep water routes which found seven offshore wind lease areas in the UK have boundaries that are one nautical mile from a deep water route (Norfolk Boreas, East Anglia One North, Norfolk Vanguard East, Norfolk Vanguard West, East Anglia Three, East Anglia One). Five of those projects are approved, two are undergoing review. Further, the Humber Gateway offshore wind farm is just over 0.5 nautical miles from a traffic separation scheme. These wind farms have not created navigation hazards.
- **Analysis and recommendations on turbine spacing to facilitate vessel transit through a wind farm and USCG search and rescue should be left to project specific NSRAs and COP reviews.**
  - However, should the USCG decide to consider these issues in the NNYB PARS anyway, AWEA and NYOWA provide the following input.
    - Given the lease and draft WEA shapes in the New York Bight, their significantly smaller size than the combined adjacent areas in New England, and the limited proximity of proposed areas to each other, AWEA and NYOWA believe the conditions in the New York Bight are significantly different than with the adjacent lease areas off the coasts of Massachusetts and Rhode Island and, therefore, a uniform 1x1 nm turbines spacing and layout should not be the default recommendation to accommodate vessel transit or SAR.
- **AWEA and NYOWA specifically request that a draft NNYB PARS report be offered for public comment, and that the Coast Guard host public meetings to discuss the contents of the draft report before finalizing.**
  - Given the importance of this report to a variety of stakeholders, it would be appropriate to publish a draft report for comment as was done in the case of the Massachusetts and Rhode Island Port Access Route Study (MARIPARS).

## **Balancing multiple uses of the ocean supported by congressional and Trump Administration direction**

The USCG can balance multiple uses of the ocean while still preserving navigation safety, which is a requirement of the Ports and Waterways Safety Act (PWSA).<sup>5</sup> Vessel routing measures that could render the existing lease area in the New York Bight and the proposed wind energy areas (WEAs) for future leasing, or significant portions thereof, as uneconomic by unnecessarily restricting the use of such areas does not represent an adequate reconciling of the needs of a reasonable use of the area with safe navigation.

The USCG has already determined that the construction and operation of renewable energy facilities in the Atlantic Ocean falls into the category of a reasonable use of waterways.<sup>6</sup> Therefore, when analyzing the need for safe access for navigation, the USCG needs to also consider the potential negative impacts any new vessel routing measures could have on offshore wind development, in conjunction with navigation safety, and attempt to reconcile these—not just pick one to the exclusion of the other.

Doing so is also consistent with congressional direction to balance ocean uses. Congress determined in the Energy Policy Act of 2005<sup>7</sup> (EPA05) that leases for offshore wind, as well as other uses, should be granted. In Section 388 of EPA05, Congress authorized the Secretary of Interior to grant leases, easements or rights-of-way for the purpose of supporting “production, transportation, or transmission of energy from sources other than oil and gas.”<sup>8</sup>

The Trump Administration has also taken important steps to advance offshore wind consistent with the President’s push for U.S. energy dominance.<sup>9</sup> For example, the Administration auctioned leases off the coasts of Massachusetts and Rhode Island,<sup>10</sup> published a call for information and nominations off the coast of California,<sup>11</sup> provided a

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<sup>5</sup> 46 USC 70003(c)(3), “to the extent practicable, reconcile the need for safe access routes with the needs of all other reasonable uses of the area involved.” Available at: [https://uscode.house.gov/view.xhtml?req=\(title:46%20section:70003%20edition:prelim\)%20OR%20\(granuleid:USC-prelim-title46-section70003\)&f=treesort&edition=prelim&num=0&jumpTo=true](https://uscode.house.gov/view.xhtml?req=(title:46%20section:70003%20edition:prelim)%20OR%20(granuleid:USC-prelim-title46-section70003)&f=treesort&edition=prelim&num=0&jumpTo=true)

<sup>6</sup> Atlantic Coast Port Access Route Study (“ACPARS”). Final Report. U.S. Coast Guard ACPARS Working Group. July 8, 2015. Page 2. “A primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as construction and operation of renewable energy facilities and other uses of the Atlantic Ocean in the study area.” Similar language was also used in the Federal Register notice announcing the NJPARS.

<sup>7</sup> 46 USC Ch. 700

<sup>8</sup> Id.

<sup>9</sup> President Trump Executive Order 13868, “Promoting Energy Independence and Economic Growth,” April 15, 2019. Available at: <https://www.govinfo.gov/content/pkg/FR-2019-04-15/pdf/2019-07656.pdf>

<sup>10</sup> See, “Bidding Bonanza: Trump Administration Smashes Record for Offshore Wind Auction with \$405 million in Winning Bids,” December 14, 2018, available at: <https://www.doi.gov/pressreleases/bidding-bonanza-trump-administration-smashes-record-offshore-wind-auction-405-million>

<sup>11</sup> See “Trump Administration Delivers Historic Progress for Offshore Wind” press release from the Department of the Interior, available at: <https://www.doi.gov/pressreleases/trump-administration-delivers-historic-progress-offshore-wind>

roadmap for additional wind energy area designations and auctions,<sup>12</sup> and most recently, published a supplemental draft environmental impact statement for Vineyard Wind 1 and is planning to make a final decision on the project by the end of this year.<sup>13</sup> BOEM is currently managing 16 active leases across the outer-continental shelf (OCS) in the Atlantic.<sup>14</sup>

AWEA and NYOWA strongly believe that robust deployment of offshore wind is entirely compatible with safe vessel navigation and urge the USCG to find a reasonable balance as directed by statute and consistent with congressional and Administration efforts.

### **Ports and Waterways Safety Act protects rights granted under leases and permits**

The PWSA states that the Secretary may “not deprive any person of the effective exercise of a right granted by a lease or permit.”<sup>15</sup> Consistent with this statutory requirement and the fact that USCG input has already been considered by BOEM in establishing the lease area located in this study area, as well as the call areas and draft WEAs, the USCG should very carefully consider whether any vessel routing measures that would impact these areas are truly necessary to ensure navigational safety.

In AWEA and NYOWA’s view, the proper place to consider issues with existing lease areas is through the project specific NSRA and COP review rather than through unilateral USCG actions. AWEA and NYOWA also encourage the USCG to continue to actively engage in BOEM’s planning processes for designating WEAs and finalizing lease areas.

### **Navigation concerns have been considered in designations of WEAs and lease areas**

In considering whether additional routing measures are needed via the NNYB PARS, AWEA and NYOWA urge the USCG to account for the substantial consultations that BOEM, in fulfillment of regulatory requirements and other obligations under MOUs, conducted with the USCG to coordinate on the lease area and draft WEAs in this NNYB study area. As AWEA and NYOWA argue in greater detail later in these comments, we do not believe there is a need for additional vessel routing measures in the New York Bight. Should the USCG nevertheless decide to include additional recommended measures in the NNYB PARS, AWEA and NYOWA recommend avoiding negative impacts to the existing lease area and avoiding negative impacts to the primary and secondary draft WEAs proposed by BOEM given prior consultations with BOEM and accommodations made to USCG concerns.

Pursuant to the 2011 memorandum of understanding<sup>16</sup> between the USCG and BOEM, USCG’s expertise on maritime safety, security, mobility, national defense, and protection of

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<sup>12</sup> Available at: [https://www.boem.gov/newsroom/notes-stakeholders/message-boems-acting-director-path-forward-offshore-wind-leasing-outer#:~:text=BOEM%20is%20uniquely%20positioned%20to,OCS%20\(83%20FR%2014881\).](https://www.boem.gov/newsroom/notes-stakeholders/message-boems-acting-director-path-forward-offshore-wind-leasing-outer#:~:text=BOEM%20is%20uniquely%20positioned%20to,OCS%20(83%20FR%2014881).)

<sup>13</sup> Available at: <https://www.boem.gov/vineyard-wind>

<sup>14</sup> For additional information see: <https://www.boem.gov/Lease-and-Grant-Information/>.

<sup>15</sup> 46 USC 70003. Available at: [https://uscode.house.gov/view.xhtml?req=\(title:46%20section:70003%20edition:prelim\)%20OR%20\(granuleid:USC-prelim-title46-section70003\)&f=tree&edition=prelim&num=0&jumpTo=true](https://uscode.house.gov/view.xhtml?req=(title:46%20section:70003%20edition:prelim)%20OR%20(granuleid:USC-prelim-title46-section70003)&f=tree&edition=prelim&num=0&jumpTo=true).

<sup>16</sup> Available at: <https://www.boem.gov/MOA-USCG-BOEMRE/>



the marine environment is utilized by BOEM in establishing WEAs and lease areas therein.<sup>17</sup> Specifically, the MOU requires BOEM to consult on how navigation safety issues are to be deliberated.<sup>18</sup> Deliberation is by, among other things, issuing a “call for information” and consideration of comments from public and private stakeholders, including the USCG, regarding the siting of wind energy lease areas. The USCG is encouraged to, and indeed has, participated at the earliest possible time, including during the NEPA scoping process, and “during the development of any Request for Interest (RFI), Call for Information and Nominations (Call), other planning notices,” which are prepared by BOEM, or through BOEM’s review of any unsolicited lease or grant requests, and require comment on “*multiple uses of the proposed leasing area (including navigation, recreation, and fisheries)*.”<sup>19</sup> In other words, BOEM ensured that it considered issues relative to multiple uses in the lease area *before* those lease sales, so that it could designate leasing areas based on what it learns in the preliminary planning process (calls, WEA designations), and identify any proposed stipulations to the lease to mitigate adverse impacts from the proposed activities.<sup>20</sup>

The USCG’s expertise has already been influential in BOEM’s consideration of call areas, draft WEAs and lease area designations in the New York Bight. For example, multiple aliquots were removed by BOEM from the final lease area due to sensitive habitat concerns, which also had the benefit as BOEM noted of largely complying with the USCG’s request for a setback of 5 nm from entry/exist points of TSS lanes.<sup>21</sup>

Further, in the New York Bight call area proceeding, BOEM removed the following areas from consideration due to navigation safety concerns and indicated they would work with the USCG to determine whether some portion of the call areas may not be offered for leasing pending further analysis:<sup>22</sup>

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<sup>17</sup> Provision 2(a): “BOEMRE will utilize the USCG’s expertise during the NEPA process and invite the USCG to be a cooperating agency during the preparation of NEPA documentation. The USCG will participate in the NEPA process as a subject matter expert for maritime safety, maritime security, maritime mobility (management of maritime traffic, commerce, and navigation), national defense, and protection of the marine environment. During BOEMRE’s preparation of NEPA documentation, the USCG should participate at the earliest possible time, particularly during the scoping process (see 40 CFR 1501.7).”

<sup>18</sup> Section 2(c): “The USCG and BOEMRE recognize the important role that risk management strategies play in ensuring the safe, secure, and environmentally responsible construction and operation of a renewable energy facility. Vessel, facility, and waterway navigational safety and security assessments are a key component of the risk management process. Accordingly, the USCG and BOEMRE have agreed to collaborate in assessing the navigational risks that may be posed by renewable energy development. This includes collaboration on the use of navigational safety risk assessments for evaluating renewable energy development activities on the OCS. Such assessments may provide useful information for assessing navigation and maritime concerns associated with renewable energy development on the OCS.”

<sup>19</sup> 30 C.F.R. § 585.211(a)(3)

<sup>20</sup> 30 C.F.R. § 585.211(b).

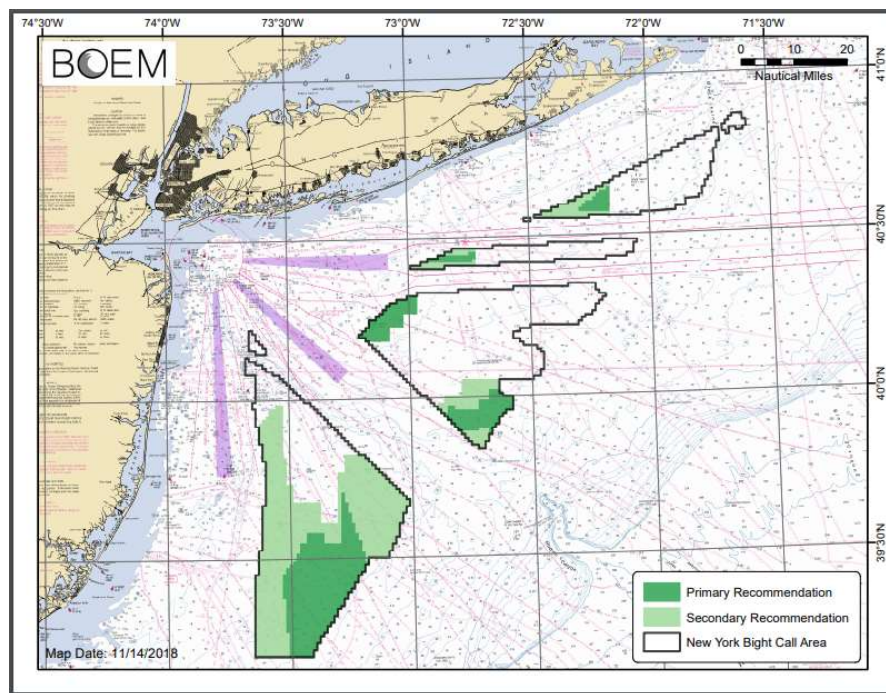
<sup>21</sup> Revised Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New York, BOEM, October 2016, Page 2-4. Available at: [https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NY/NY\\_Revised\\_EA\\_FONSI.pdf](https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NY/NY_Revised_EA_FONSI.pdf). “Implementation of a 5 nm buffer from TSS entry/exit at the western tip of the proposed lease area (i.e., closest to NY harbor) is no longer an issue due to the removal of five aliquots due to the existence of sensitive habitat in Cholera Bank under both Alternatives A and B. Less than one aliquot in the western tip of the proposed lease area is within 5 nm of the TSS entry/exit.”

<sup>22</sup> Federal Register, Vol. 83 No. 70, April 11, 2018, pages 15602-15617. Available at: <https://www.boem.gov/sites/default/files/regulations/Federal-Register-Notices/2018/83-FR-15602.pdf>.

- Between the Hudson North and Hudson South Call Areas, an area 30 nm in length and approximately 15 nm wide from the entrance/exit of the New York Southeastern Approach (Hudson Canyon to Ambrose and Ambrose to Hudson Canyon traffic lanes).
- All sub-blocks that overlap with a 1 nm buffer along all outer edges of traffic lanes, shipping safety fairways, and the above-mentioned 30 nm delineated area.

In November 2018, BOEM presented draft WEAs to the Intergovernmental Renewable Energy Task Force on the New York Bight that represented only a fraction of the full call area acreage.<sup>23</sup> See Figure 1 below. BOEM identified draft “primary” and “secondary” WEA recommendations. According to the BOEM presentation<sup>24</sup> at this Task Force meeting, one of the main reasons the draft WEAs were significantly reduced from the originally proposed call areas was due to vessel navigation concerns.<sup>25</sup>

**Figure 1. Map of draft primary and secondary WEAs proposed by BOEM**



AWEA and NYOWA recognize that in some cases, BOEM has not gone as far as USCG requested in removing areas from consideration. However, AWEA and NYOWA strongly

<sup>23</sup> Three maps including overlaid with nautical charts and with longitude and latitude coordinates are available on the BOEM website here: <https://www.boem.gov/renewable-energy/state-activities/intergovernmental-renewable-energy-task-force-meeting-new-york-0>

<sup>24</sup> Available at: <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NY/Area-ID-presentation.pdf>

<sup>25</sup> Ibid. Slides 10, 13, 15, and 17.

believe that the appropriate place to resolve any remaining concerns regarding vessel navigation with existing lease areas is through individual project NSRAs and COP reviews and conditions on approval. This view is generally consistent with the positions articulated previously by BOEM.

For example, as BOEM has explained, “In some instances, the potential for conflict cannot be fully resolved during BOEM’s planning process. In such cases, BOEM has been and will continue to be especially vigilant when specific plans for development are submitted. BOEM’s goal is to ensure that the installation of commercial wind facilities is compatible with navigational safety.”<sup>26</sup>

Further, as then BOEM Director Abigail Hopper wrote<sup>27</sup> in response to the ACPARS report, “While BOEM strongly supports the development of guidelines that will reduce risks to offshore wind facilities and the maritime community, the Bureau does have concerns about the timing of when the guidelines are applied in our planning and leasing process and the inclusion of precise recommended buffer distances. As we have previously expressed and reflected in our leasing decisions, the Bureau strongly believes that site-specific development of setback distances that consider the unique characteristics of each project/area is the most appropriate method for establishing the necessary buffers.”

The BOEM letter went on to explain that lessees need some flexibility to microsite a project within their lease areas given that data critical to siting decisions, such as data from environmental surveys, geophysical and geotechnical surveys etc., is not collected until after a lease is secured.

The BOEM letter concludes, “Applying setbacks too early in the planning and leasing phase of the program may unnecessarily eliminate areas that eventually are determined to be productive and a low risk to mariners. Allowing for flexibility on setback distances and evaluating detailed developer proposals on a case-by-case basis will ensure the federal government makes informed decisions... Additionally, awareness and incorporation of emerging technologies, mitigation measures, and evolving best practices...at the time BOEM is evaluating a specific wind farm, will lead to better decisions that more appropriately balance the many uses of the Outer Continental Shelf.”

AWEA and NYOWA agree.

Offshore wind farm development is extremely complex. As lease areas are studied by lease holders during implementation of their site assessment plan, they are collecting data and analyzing various factors – wind speeds, other atmospheric and ocean data, wildlife (avian, marine mammals etc.) issues, vessel navigation (via NSRAs), Department of Defense

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<sup>26</sup> Response to Comments and Explanation of Changes from the New Jersey Proposed Sale Notice to the Final Sale Notice, BOEM, September 2015, Page 4. Available at:

<https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NJ/Response-to-Comments-and-Explanation-of-NJ-FSN-Changes.pdf>

<sup>27</sup> BOEM letter to USCG, June 16, 2016. Available at: <https://downloads.regulations.gov/USCG-2011-0351-0162/content.pdf>



activities, seabed characterization, commercial fisheries, etc. – that inform and may change multiple times how they are thinking about the lease area and the proposed project.

During the project design phase, lease holders periodically refine the turbine layout, total number of turbines etc. based on information acquired through studying the area and engaging with regulators and stakeholders. Given the rapidly advancing wind turbine technology and the years it takes to develop offshore wind farms, even the planned turbine size and model around which an offshore wind farm is being developed may change as the project moves forward. This has implications for wind turbine layout and spacing. Optimizing wind turbine layout and spacing is critical to maximizing energy production, which is central to keeping the cost of energy affordable and helps to provide a reasonable return to taxpayers.

This complexity of development is recognized by BOEM in its draft project design envelope (PDE) guidance.<sup>28</sup> In the guidance, BOEM acknowledges that not all final design parameters may be decided when a developer is ready to submit their COP for NEPA review. The PDE approach as practiced in other countries and as implemented by BOEM, allows a developer to propose a reasonable range of potential project design parameters for certain key components of a development, including: type and number of turbines; layout; foundation type; location of the export cable route; location of an onshore substation; location of the grid connection point; and construction methods and timing, for purposes of the environmental review of the project. BOEM will then analyze the projects using the most impactful of the project ranges proposed by the developer. According to BOEM, the PDE approach provides “appropriate flexibility to accommodate final design decisions in later stages of the process (e.g., micro-siting to optimize generation efficiency and address site constraints).”

While expressing a preference for BOEM adoption of marine planning guidelines during the planning phase,<sup>29</sup> the USCG has also noted the importance of project-specific reviews, including through NSRAs.<sup>30</sup> For example, in the *Federal Register* notice announcing the availability of the final MARIPARS, the USCG wrote, “The USCG will continue to serve as a NEPA cooperating agency to BOEM’s environmental review of each proposed project. In that role, the USCG will evaluate the navigational safety risks of each proposal on a case-by-case basis.”<sup>31</sup> Navigation and Inspection Circular 01-19 made a similar point when saying, “The Coast Guard plays an important role in assisting the LA [lead agency], whose licensing and permitting activities may affect Coast Guard missions. The Coast Guard will evaluate applications and make recommendations to the LA concerning the potential impacts of the OREI [offshore renewable energy installation].” The circular goes on to

<sup>28</sup> Available at: <https://www.boem.gov/Draft-Design-Envelope-Guidance/>

<sup>29</sup> Atlantic Coast Port Access Route Study Final Report, Coast Guard, Page 13. Available at: [https://www.navcen.uscg.gov/pdf/PARS/ACPARS\\_Final\\_Report\\_08Jul2015\\_Combined\\_Appendix\\_Enclosures\\_Final\\_After\\_LMI\\_Review.pdf](https://www.navcen.uscg.gov/pdf/PARS/ACPARS_Final_Report_08Jul2015_Combined_Appendix_Enclosures_Final_After_LMI_Review.pdf)

<sup>30</sup> Ibid. Enclosure 2 on Marine Planning Guidelines, Page 5. “As a cooperating agency in the NEPA process, the Coast Guard will request, through the Lead Federal Agency, that the developer complete a Navigation Safety Risk Assessment (NSRA) to evaluate potential impacts to navigational safety.”

<sup>31</sup> *Federal Register*, Vol. 85 No. 102, May 27, 2020, pages 31792-31796. Available at: <https://www.govinfo.gov/content/pkg/FR-2020-05-27/pdf/2020-11262.pdf>

explain, "...the Coast Guard's role remains that of assisting the LA as described in paragraph 2.b by providing recommendations necessary to reduce the potential impacts of an OREI on the MTS, navigation safety, and Coast Guard missions."<sup>32</sup>

AWEA and NYOWA encourage the USCG to support the flexibility needed by BOEM and project developers with respect to existing leases and with respect to future leasing.

### **Experience in Europe provides lessons learned that should inform the USCG approach**

In Europe, navigation regulations and guidance applied to offshore wind farms adopt internationally recognized laws such as the Safety of Life at Sea<sup>33</sup> (SOLAS), International Maritime Organization (IMO) Convention and the IMO Convention on the International Regulations for Preventing Collisions at Sea (COLREG).<sup>34</sup> This approach has kept maritime users safe, while allowing flexibility in the development of offshore wind farms based on a project-level NSRA and mitigation.

Guidance is provided on appropriate safety distances between projects and distances from designated shipping lanes or routes that reflect dominant transit patterns. The designation of specific transit lanes through a wind farm is not a requirement of any of these laws and regulations and buffers to traffic lanes can vary based on project specific analysis. European practice has adopted effective mitigation methods to minimize the potential impacts on navigation safety. The same approach can work here.

Adherence to COLREGs acts, in a way, as a mitigation measure. Adherence to COLREGs (specifically, Rule 8) means vessel operators have an obligation to use all available means given prevailing conditions to determine if a collision risk exists and, if there is any doubt, take precautionary measures to avoid that risk, including maintaining a safe speed. A safe speed is determined considering visibility, traffic density, the state of the sea/currents, proximity of navigational hazards, and maneuverability and stopping distance for the vessel.

Consistent with COLREGS, the USCG also puts part of the responsibility on mariners to ensure safe navigation via the following recommendation from the final MARIPARS report:

"Mariners transiting in or near the MA/RI WEA should use extra caution, ensure proper watch and assess all risk factors. Offshore renewable energy installations present new challenges to safe navigation, but proper voyage planning and access to relevant safety information should ensure that safety is not compromised."<sup>35</sup>

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<sup>32</sup> Navigation and Inspection Circular 01-19, August 1, 2019, available at:

<https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/5ps/NVIC/2019/NVIC%2001-19-COMDTPUB-P16700-4-dtd-01-Aug-2019-Signed.pdf?ver=2019-08-08-160540-483>

<sup>33</sup> Summary available at: [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-\(SOLAS\)-1974.aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-(SOLAS)-1974.aspx).

<sup>34</sup> Summary available at: <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/COLREG.aspx>

<sup>35</sup> MARIPARS, page 38.

While countries differ in the specifics of their approaches, only one country, Germany, requires a designated TSS before project-specific layouts are available. This is because Germany has extremely high commercial vessel volumes, which far exceeds those in the U.S. but are managed using International Maritime Organization (IMO) recognized TSSs.

In Europe, a site-specific NSRA is undertaken to fully evaluate the potential navigational risks posed by a specific offshore wind farm. Based on the findings of the NSRA, risks, if any, to navigation from a specific proposed wind farm can be evaluated and addressed, and potential mitigation measures implemented. In the U.S., a NSRA is also required during the project-specific COP development and review process managed by BOEM and in which the USCG is a cooperating agency.<sup>36</sup> These site-specific risk assessments allow developers to work with local stakeholders to ensure mitigation measures are appropriate. This process includes consideration of navigational risks to all types of vessels in the area. It allows safety measures and mitigation to be tailored to the needs of the USCG, vessel operators in the area and developers.

Among the types measures that can facilitate safe navigation and should be considered during project specific NSRAs and individual developer and stakeholder discussions with USCG are:

- Turbine spacing
- Turbine layout (pattern, orientation)
- Buffers from navigation lanes
- Communications plans – frequent notices to mariners, utilization of fisheries liaisons and local fisheries representatives based in regional ports to facilitate communication etc.
- Utilization by developers of marine coordination and operations centers to manage project vessel traffic and to provide situational awareness for non-project vessels
- Presence of offshore wind project vessels, including service operation vessels and crew transfer vessels ability to inform nearby mariners of current project activities in or near the wind farm
- Transit speeds
- Deployment of automatic identification technologies (AIS) technologies
- Marine navigation lighting and marking
- Establishment of safety zones during construction
- Adherence to COLREGs and general safe navigation operational practices
- Cable burial depth and shielding
- Proper marking of turbines and cable routes on NOAA nautical charts
- Remote monitoring and control of project operations

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<sup>36</sup> See "Information Guidelines for a Renewable Energy Construction and Operations Plan," BOEM, Version 4.0, May 27, 2020. Available at: <https://www.boem.gov/sites/default/files/documents/about-boem/COP%20Guidelines.pdf>

## **Existing vessel routing measures in the New York Bight are sufficient**

The USCG conducts a PARS and may suggest vessel routing measures such as fairways or TSSs “in order to provide safe access routes for the movement of vessel traffic proceeding to or from ports or places subject to the jurisdiction of the United States.”<sup>37</sup> Fortunately, as described in this section, the USCG already provides well-engineered port access with a full suite of safety measures in place in the New York Bight and into New York harbor. And, based on this and the vessel data analysis that follows, AWEA and NYOWA believe these existing safety measures are adequate to ensure safe vessel navigation even in the presence of new offshore structures. The NNYB PARS should ratify the existing measures are sufficient.

### *Existing measures*

- Vessel Traffic Service (VTS) New York<sup>38</sup> provides monitoring and services well into the New York Bight even though the enforceable zone is confined essentially to New York harbor. There is a 48-hour notice requirement prior to vessels arriving in port. VTS New York also provides a suite of navigation safety information to all vessels in the vicinity of the New York Bight, not solely those vessels within the VTS area of responsibility.
  - If necessary, before any new routing measures are implemented, USCG should consider expanding VTS coverage in the First District. For example, virtually all tug and barge traffic within the PARS study area that departs New York for New England, or vice versa, transits along the southern shore of Long Island. See Figure 16 below from the NYSERDA report. These vessels depart a positive-control VTS in New York, travel in open water along Long Island, and enter a passive-control Vessel Movement Reporting System (VMRS) in Buzzards Bay, or vice versa. Before establishing additional routing measures in an area abounding with such routes, the Coast Guard might examine the “gap” in VTS coverage between New York and Buzzards Bay if it finds that additional measures are necessary to preserve navigation safety.
- USCG rules<sup>39</sup> require foreign-flagged vessels provide 96 hours advance notice of arrival, which allows the USCG time to vet the vessel for both security and safety issues, and to manage the vessel’s arrival in port.

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<sup>37</sup> 46 USC 70003(a)

<sup>38</sup> 33 CFR 161. A VTS is “designed to improve the safety and efficiency of vessel traffic and to protect the environment. The VTS has the capability to interact with marine traffic and respond to traffic situations developing in the VTS area.” This section of USCG regulations acknowledges, “Although mandatory participation in VTSNY is limited to the area within the navigable waters of the United States, VTSNY will provide services beyond those waters. Prospective users are encouraged to report beyond the area of required participation in order to facilitate advance vessel traffic management in the VTS area and to receive VTSNY advisories and/or assistance.” Available at: <https://www.govinfo.gov/content/pkg/CFR-2001-title33-vol2/pdf/CFR-2001-title33-vol2-part161.pdf>

<sup>39</sup> 33 CFR 401. Available at: <https://www.govinfo.gov/content/pkg/CFR-2015-title33-vol3/pdf/CFR-2015-title33-vol3-part401.pdf>



- The New York Bight is within a USCG “regulated navigation area.”<sup>40</sup> Therefore, USCG regulations set requirements for positive control of barges, enhanced communication, and voyage planning.
  - If necessary, revising the regulated navigation would be an appropriate first step before implementing new routing measures.
- Traffic separation schemes and fairways:<sup>41</sup>
  - Ambrose to Nantucket/Nantucket to Ambrose Safety Fairways<sup>42</sup>
  - Ambrose to Hudson Canyon/Hudson Canyon to Ambrose TSS<sup>43</sup>
  - Ambrose to Barnegat/Barnegat to Ambrose TSS<sup>44</sup>
- Other measures:
  - Off New York: Precautionary areas.<sup>45</sup>
  - Off New York: Eastern approach, off Nantucket.
  - Off New York: Eastern approach.
  - Off New York: South-eastern approach.
  - Off New York: Southern approach.

These measures appear to largely address the needs of large commercial vessels (cargo, tanker) and passenger ships, which generally follow fairways and TSSs as noted in the NYSERDA report. Combined, these vessels make up more than 85% of the vessel traffic in the study area in that report. AWEA and NYOWA provide additional details on this report in the vessel data section below.

Further, tug and tow navigation needs are also already being considered in the USCG’s fairways rulemaking,<sup>46</sup> which AWEA provided comments on, which are summarized later in these comments.

And, as discussed in more detail below, AWEA and NYOWA believe commercial fishing vessel concerns can be addressed as well with existing safety measures. But, if BOEM and USCG determine transit lanes are necessary for unleased areas, AWEA and NYOWA believe

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<sup>40</sup> 33 CFR 165.100. Available at: <https://www.govinfo.gov/content/pkg/CFR-2012-title33-vol2/pdf/CFR-2012-title33-vol2-part165.pdf>

<sup>41</sup> 33 CFR 167. Available at: <https://www.govinfo.gov/content/pkg/CFR-2001-title33-vol2/pdf/CFR-2001-title33-vol2-part167.pdf>

<sup>42</sup> 33 CFR 166.500. Available at: <https://www.govinfo.gov/content/pkg/CFR-2001-title33-vol2/pdf/CFR-2001-title33-vol2-part167.pdf>

<sup>43</sup> 33 CFR 167.150. Available at: <https://www.govinfo.gov/content/pkg/CFR-2001-title33-vol2/pdf/CFR-2001-title33-vol2-part167.pdf>

<sup>44</sup> Ibid.

<sup>45</sup> 33 CFR 167.151-155. Available at: <https://www.govinfo.gov/content/pkg/CFR-2001-title33-vol2/pdf/CFR-2001-title33-vol2-part167.pdf>

<sup>46</sup> Federal Register, Vol. 85, No. 119, Friday, June 19, 2020, pages 37034-37040. Available at: <https://www.govinfo.gov/content/pkg/FR-2020-06-19/pdf/2020-12910.pdf>.

they can be established in ways that preserve BOEM's primary and secondary draft WEAs for future leasing.

Given the existing safety measures described above along with ongoing proceedings to address related navigation issues, the USCG bears a heavy burden to demonstrate the need for additional safety measures.

### **USCG should reconsider recommended buffers and the need for new measures based on European and GOM experience and specific waterway/vessel analysis**

#### *European Experience*

Fortunately, our nation does not need to trade-off the deployment of offshore wind and its associated benefits with navigation safety. We can have both. The global experience proves it. According to the Global Wind Energy Council (GWEC), 6,145 MWs of offshore wind was installed in 2019, bringing the cumulative installations to 29,136 MWs (Figure 1). Following is a chart from GWEC that details installations in 2018 and 2019 along with a cumulative total for each country that has deployed offshore wind.<sup>47</sup>

**Figure 1: Global offshore wind installed capacity**

| MW, offshore          | New installations 2018 | Total installations 2018 | New installations 2019 | Total installations 2019 |
|-----------------------|------------------------|--------------------------|------------------------|--------------------------|
| <b>Total offshore</b> | <b>4,348</b>           | <b>22,997</b>            | <b>6,145</b>           | <b>29,136</b>            |
| <b>Europe</b>         | <b>2,658</b>           | <b>18,280</b>            | <b>3,627</b>           | <b>21,903</b>            |
| United Kingdom        | 1,312                  | 7,963                    | 1,764                  | 9,723                    |
| Germany               | 969                    | 6,382                    | 1,111                  | 7,493                    |
| Belgium               | 309                    | 1,186                    | 370                    | 1,556                    |
| Denmark               | 61                     | 1,329                    | 374                    | 1,703                    |
| Netherlands           | 0                      | 1,118                    | 0                      | 1,118                    |
| Other Europe          | 7                      | 302                      | 8                      | 310                      |
| <b>Asia-Pacific</b>   | <b>1,690</b>           | <b>4,687</b>             | <b>2,518</b>           | <b>7,204</b>             |
| China                 | 1,655                  | 4,443                    | 2,395                  | 6,838                    |
| South Korea           | 35                     | 73                       | 0                      | 73                       |
| Other Asia            | 0                      | 171                      | 123                    | 292                      |
| <b>Americas</b>       | <b>0</b>               | <b>30</b>                | <b>0</b>               | <b>30</b>                |
| USA                   | 0                      | 30                       | 0                      | 30                       |

These existing installations have been done in ways that are compatible with safe navigation. In fact, the USCG looked into the one incident that commenters on the draft Massachusetts and Rhode Island Port Access Route Study (MARIPARS) recommended the Coast Guard consider of a reported allision between a vessel navigating through a European wind farm and a wind turbine and found the captain was to blame.<sup>48</sup> In other words, there was not an inherent challenge with the wind farm, spacing within the wind farm or other

<sup>47</sup> Global Wind Energy Council. *Global Wind Energy Report*. March 2020. Available at <https://gwec.net/global-wind-report-2019/>.

<sup>48</sup> Final Report the Areas Offshore of Massachusetts and Rhode Island Port Access Route Study, USCG, May 2020. Available at: <https://www.regulations.gov/contentStreamer?documentId=USCG-2019-0131-0101&contentType=pdf>

mitigation measures that may have been deployed, it was captain error that led to the incident.

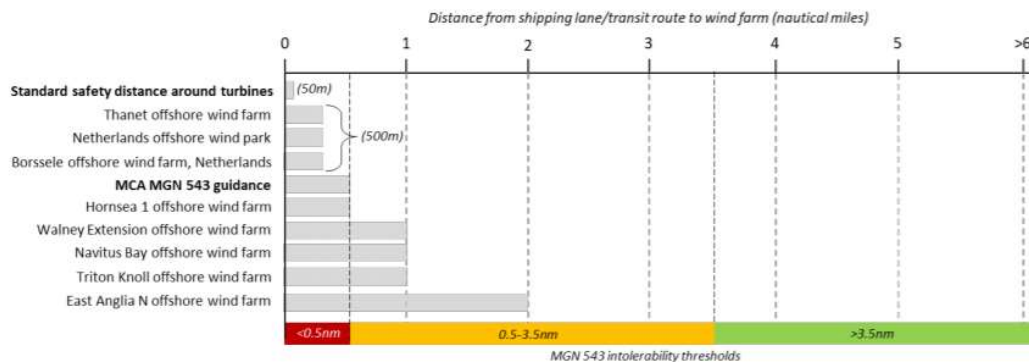
In NVIC 01-19, the USCG marine planning guidelines recommend a buffer of 2 nm from the outer or seaward boundary of a traffic lane (assumes 300 meter – 400 meter vessels) and 5 nm from the entry/exit of a TSS. AWEA and NYOWA urge the USCG to reconsider these specific recommendations. Narrower buffers are justified based on the experience with offshore wind turbines and safe navigation in Europe as well as the experience of safe navigation in the Gulf of Mexico in the vicinity offshore oil and gas platforms. Narrower buffers have been demonstrated to be safe in both cases.

As Renewables Consulting Group (RCG) noted in its report for NYSERDA, “It is difficult to apply a standardized minimum distance between wind farms and navigation routes, as risks will vary depending on the location, proximity of turbines to a route boundary, prevailing metocean conditions, and existing and future vessel traffic profiles.”<sup>49</sup> RCG notes that distances from 0.5 nm to 3.5 nm can be found to be safe under the UK Maritime and Coast Guard Agency Marine Guidance Notice 543 (MCA MGN 543)<sup>50</sup> if the risk is reduced to a level “as low as reasonably practical” or ALARP.

According to the NYSERDA report, “the most common distance between a wind farm and shipping lane is approximately 1 nm.” Figure 30 from the NYSERDA report is reproduced below:

**Figure 30. Minimum Distances Between Example European Offshore Wind Farms and Shipping Routes Compared with Intolerability Thresholds**

Source: MCA, 2016



RCG concludes in the NYSERDA report, “This study suggests that 1 nm is an appropriate setback for initial planning purposes and informing the preliminary identification of area for potential locating of WEAs, and actual setbacks between shipping and navigation lanes

<sup>49</sup> NYSERDA report, page 53.

<sup>50</sup> Available at:

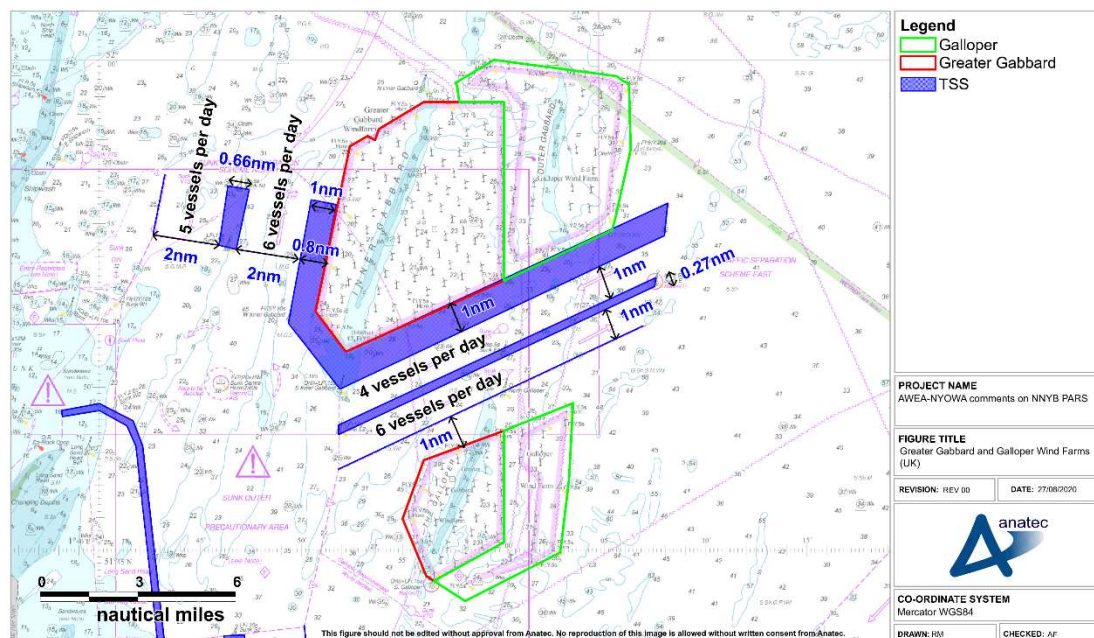
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/502021/MGN\\_543.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/502021/MGN_543.pdf)

and WEAs (and sites) should be determined at a later stage in the siting process following completion of a full NSRA.”<sup>51</sup>

There are numerous examples of operational offshore wind farms located in proximity to busy routing measures within European waters. Figure 2 presents a pertinent example, the operational Greater Gabbard and Galloper wind farms, which are located within the outer Thames Estuary in the UK. Both projects are sited 0.8 - 1nm from the neighboring Sunk Routing Measure, which comprises three TSS converging upon a central precautionary area. This represents a very similar scenario to that of the Ambrose / Nantucket, Ambrose / Hudson Canyon, and Ambrose / Barnegat TSS referenced above, which again converge upon a central precautionary area.

The Sunk Routing Measure (which includes the TSS and a precautionary area as above) was implemented as part of overarching traffic management plans in the area, and the design included consideration for proposed wind farm developments. It should also be noted that a VTS (information only) was established as part of these traffic management measures.

**Figure 2. Greater Gabbard and Galloper Wind Farms**



As indicated in Figure 2, the bordering lanes are used by between four and six vessels a day based on recent marine traffic assessment of AIS data<sup>52</sup> transmitted by the vessels. Further study of similar data<sup>52</sup> within U.S. waters shows that multiple vessels utilizing the TSS lanes in proximity to Greater Gabbard and Galloper also transit the routing measures in the New York Bight area. As such, these vessels will be familiar with transiting in close proximity to offshore wind farms whilst within a routing measure.

<sup>51</sup> Ibid. page 57.

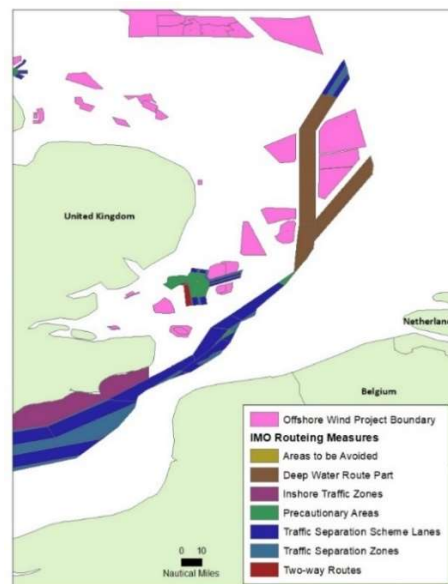
<sup>52</sup> In-house marine traffic data held and assessed by Anatec Ltd.



Greater Gabbard was fully commissioned in 2012, with Galloper following in 2018. To date there have been no reported incidents associated with the use of the bordering TSS lanes for vessel transit. It is noted in this regard that this is considered a busy area in terms of traffic and it is located in proximity to the Thames Estuary, which houses key ports including the Port of London and the Medway Ports of Sheerness, Chatham and Thamesport. This indicates that with effective traffic management in place, vessels can adapt to the presence of offshore wind farms without issue.

AWEA separately calculated the proximity of several UK offshore wind farms to deep water routes.<sup>53</sup> Based on the AWEA calculations, as shown in Figure 3 below, seven offshore wind lease areas in the UK have boundaries that are one nautical mile from a deep water route (Norfolk Boreas, East Anglia One North, Norfolk Vanguard East, Norfolk Vanguard West, East Anglia Three, East Anglia One). Five of those wind farms are approved, two are still pending. Further, the Humber Gateway offshore wind farm is just over 0.5 nautical miles from a traffic separation scheme. These wind farms have not created navigation hazards. Further, it is AWEA's understanding that the largest active container vessel in the world, the HMM Algeciras, a 400m container ship, has utilized the routeing measures adjacent to the operational Greater Gabbard and Galloper wind farms. This speaks to the compatibility of even the very largest vessels navigating safely in the vicinity of offshore wind farms.

**Figure 3. Proximity of sampling of UK OSW farms to deep water routes**



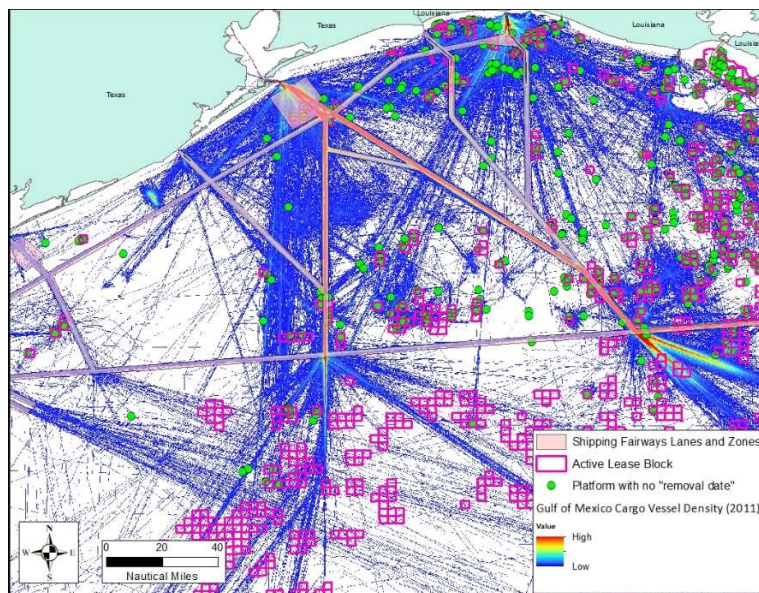
<sup>53</sup> The data used to create this map and calculations came from the following public sources: Admiralty Maritime Data Solutions: <https://datahub.admiralty.co.uk/portal/apps/sites/#/marine-data-portal>, and The Crown Estate GIS data portal: <https://opendata-thecrownestate.opendata.arcgis.com/datasets/thecrownestate::offshore-wind-site-agreements-england-wales-ni-the-crown-estate-1>

To further illustrate this point by citing a recent example, this summer, the UK government consented to the Norfolk Vanguard Offshore Wind Farm. As noted in the analysis of the project, “the DR1 Lightbuoy Deep Water Route (DWR) runs between Norfolk Vanguard East and West approximately 1nm from both of these sites, and the West Friesland DWR passes approximately 2nm to the east of Norfolk Vanguard East.”<sup>54</sup> It is AWEA’s understanding that once a project area receives consent in the UK, the developer has flexibility to site the turbines anywhere within that polygon up to the border. The experience in Europe demonstrates that vessel navigation around and through a wind farm can be done safely via project-specific reviews and mitigation, and with measures typically less onerous than those proposed by the USCG.

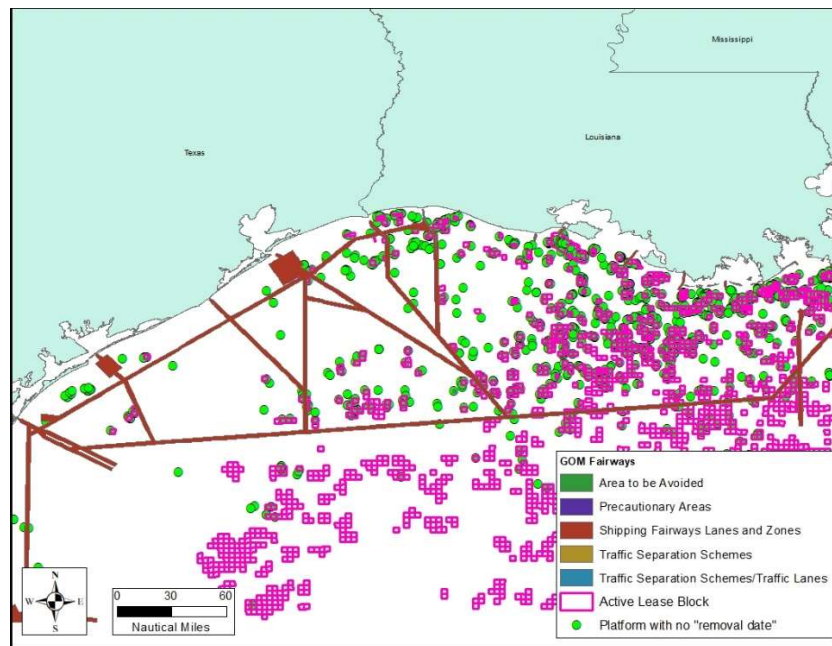
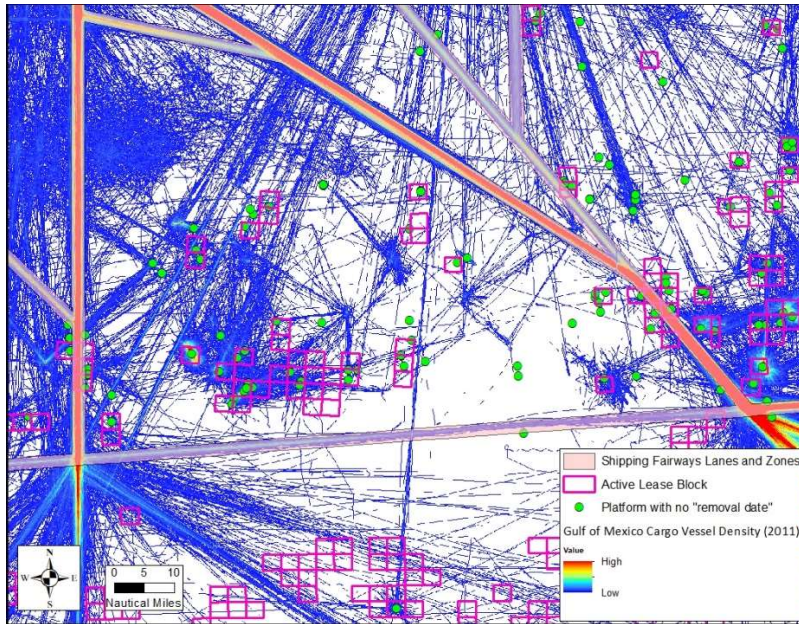
#### *Gulf of Mexico experience*

The experience of safe vessel navigation in the Gulf of Mexico in the vicinity of offshore oil and gas platforms is also instructive. The maps to follow (Figures 4-6) demonstrate that relatively narrow fairways with large vessels utilizing them can co-exist safely with numerous large offshore energy structures nearby, including more than 150 structures within 1 nm of a fairway. This is further evidence the USCG should reconsider buffer recommendations and whether new routing measures are needed.

**Figures 4-6. Maps demonstrating proximity of fairways, vessel traffic, structures and lease blocks in the Gulf of Mexico**



<sup>54</sup> The UK government analysis of this project is available here:  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004268-Norfolk%20Vanguard%20Final%20Report%20to%20SoS%2010092019%20FINAL.pdf>.





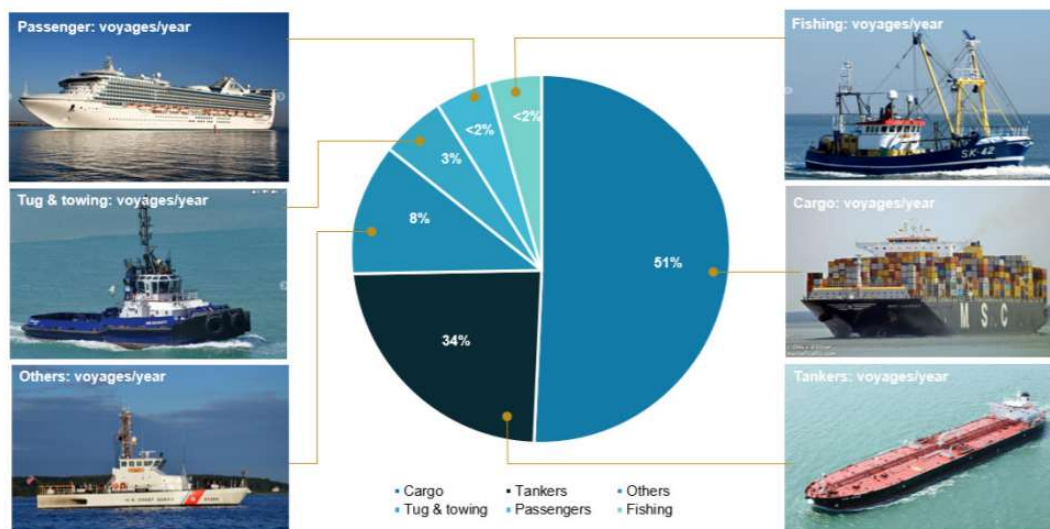
AWEA and NYOWA encourage the USCG to look to the experience in Europe and the Gulf of Mexico before deciding whether new measures are needed in the New York Bight.

### Vessel analysis in the study area

AWEA pulled 2019 AIS data from the Northeast Ocean Data Portal for the NNYB PARS study area. This data was largely consistent with the 2011, 2013 and 2014 data used by RCG for the NYSEDA vessel navigation report.<sup>55</sup> The NYSEDA report also utilized NOAA VMS data from the Northeast Fisheries Science Center to capture fishing vessel data. Therefore, rather than doing duplicative analysis, AWEA and NYOWA summarize the NYSEDA report findings below.

Figure 12 in the NYSEDA report (reproduced below) shows the majority of vessels operating in the study area were cargo vessels (51%) with tankers second (34%). The remaining vessels are other, i.e. USCG, military, dredging, diving vessels etc. (8%), tug and tow (3%), passenger 1.6% and fishing (1.4%) accounting for significantly fewer.

**Figure 12. Percentage of Vessel Trips by Each Type of AIS-enabled vessel within the Area of Analysis in 2013**



Importantly, the NYSEDA report finds that cargo vessels and tanker vessels predominantly follow existing fairways and TSSs.<sup>56</sup> The two figures below reproduced from the report illustrate this point.

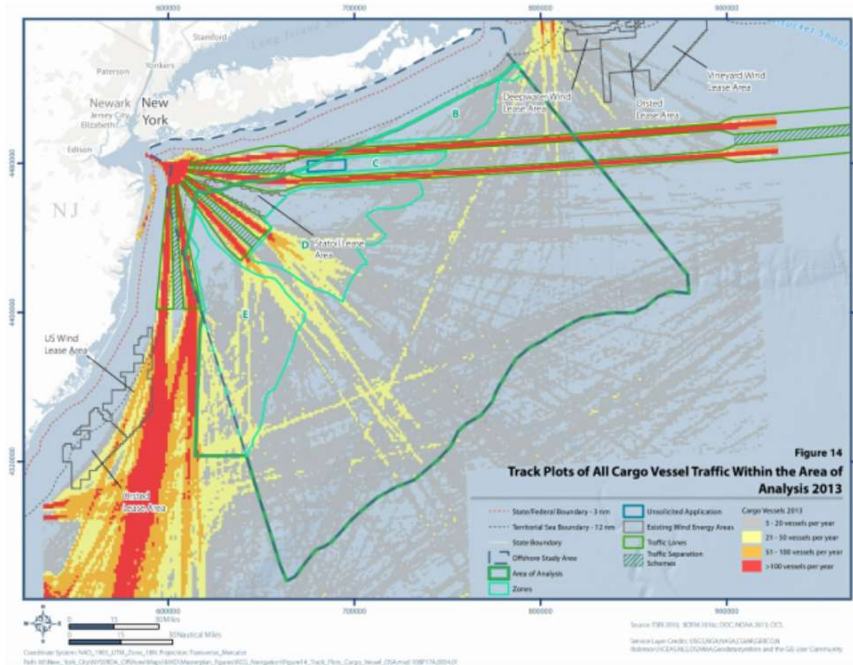
<sup>55</sup> Available at: <https://www.nyserda.ny.gov/-/media/Files/Publications/Research/Biomass-Solar-Wind/Master-Plan/17-25q-Shipping-and-Navigation.pdf>

<sup>56</sup> Ibid. pages 24 and 26.



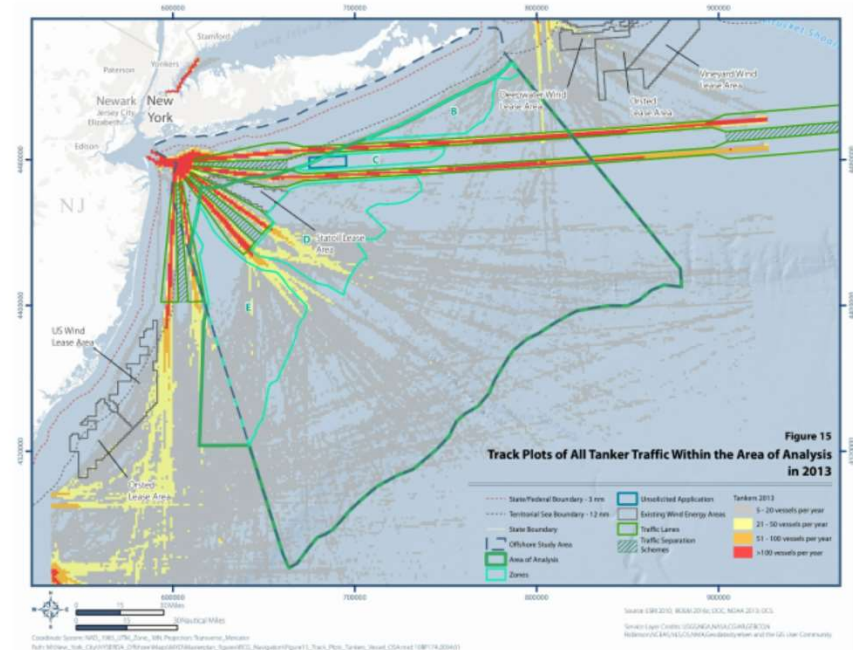
**Figure 14. Track Plots of All Cargo Vessel Traffic Within the Area of Analysis in 2013**

Source: ESRI 2010; BOEM 2016; DOC, NOAA 2013; OCS



**Figure 15. Track Plots of All Tanker Traffic Within the Area of Analysis in 2013**

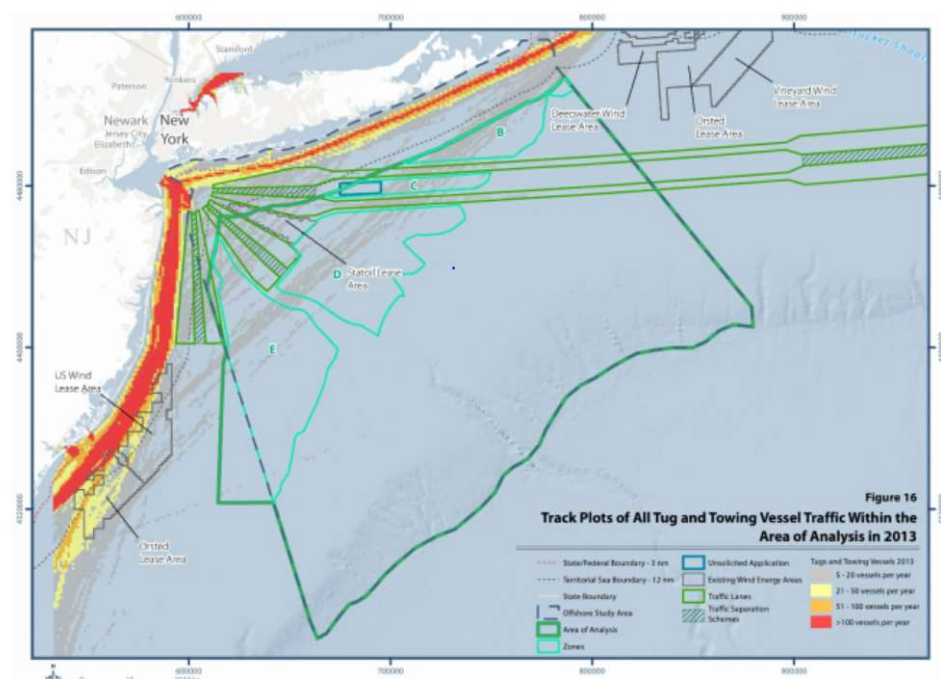
Source: ESRI 2010; BOEM 2016; DOC, NOAA 2013; OCS



With respect to tug and tow traffic, the NYSERDA report finds, “Tug and towing vessel traffic predominantly follows coastal routes with the highest concentration of traffic south from New York and outside the Ambrose-to-Barnegat TSS. A small number of tug and towing vessels use the fairways inbound to the Nantucket-to-Ambrose TSS and outbound from Ambrose-to-Nantucket TSS (Figure 16). Very few, if any, tug and towing vessels use the Hudson Canyon-to-Ambrose and Ambrose-to-Hudson Canyon TSSs, or the Barnegat-to-Ambrose and Ambrose-to-Barnegat TSSs.”<sup>57</sup> The figure below reproduced from the report illustrates this traffic.

**Figure 16. Track Plots of All Tug and Towing Vessel Traffic Within the Area of Analysis in 2013**

Source: ESRI 2010; BOEM 2016; DOC, NOAA 2013; OCS



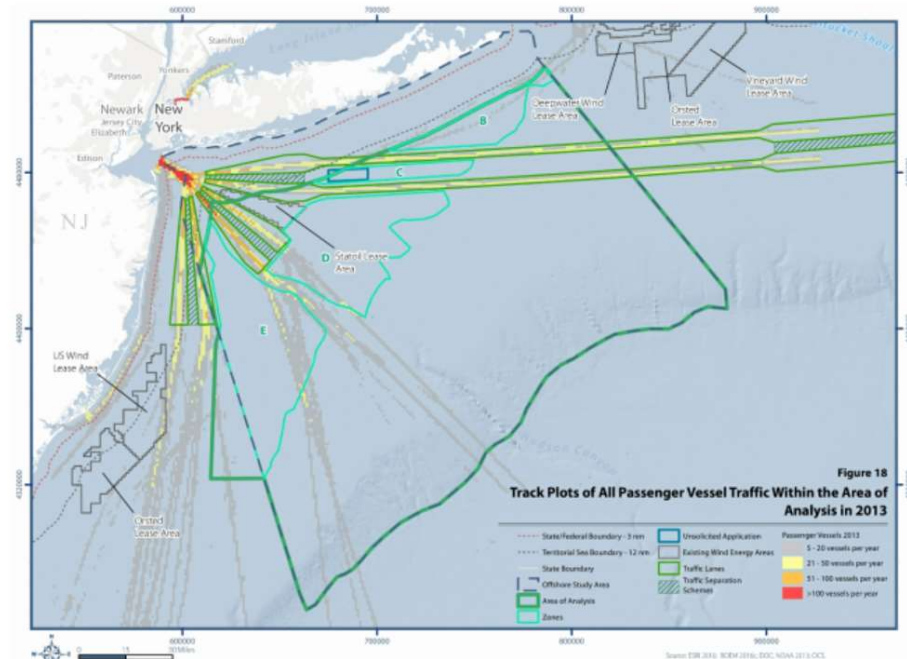
The NYSERDA report also finds that passenger vessels “tend to follow fairways and TSSs.” See figure below from the report.

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<sup>57</sup> Ibid. page 28.

**Figure 18. Track Plots of All Passenger Vessel Traffic Within the Area of Analysis in 2013**

Source: ESRI 2010; BOEM 2016; DOC, NOAA 2013; OCS



With respect to fishing vessels, the NYSERDA report found, “The analysis demonstrates that fishing vessels do not use fairways and TSSs other than to cross them on route to or returning from fishing grounds. Relatively high vessel counts were recorded at ports and harbor entrances, but vessels appear to rapidly disperse or converge (depending on inbound or outbound direction) along coastal routes and harbors of origin and/or at fish landing sites.”<sup>58</sup>

The two figures below from the report plot fishing vessel traffic.

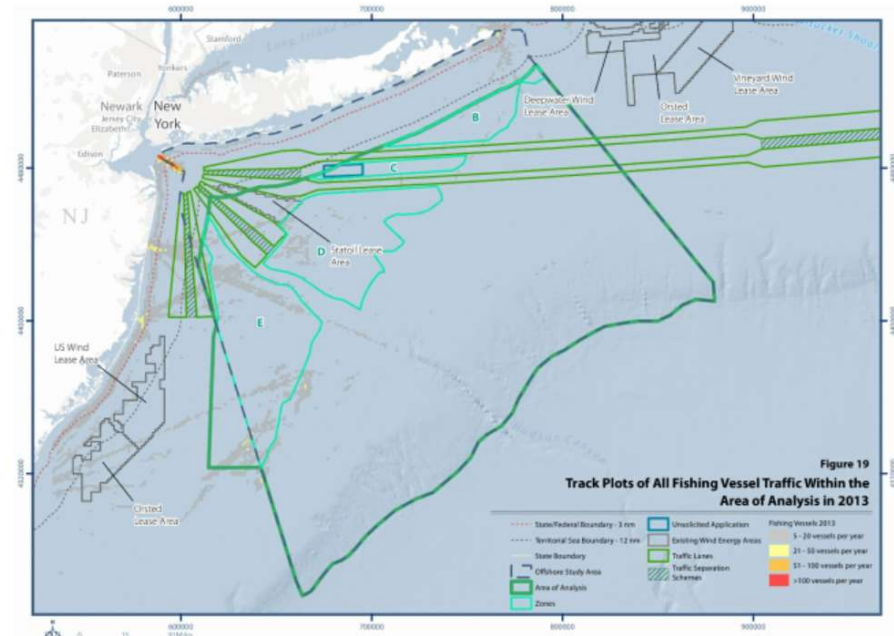
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<sup>58</sup> Ibid. Page 33. The report explains the methodology for fishing data as follows, “Data obtained from NOAA and the NEFSC were mapped in a 10-minute-square grid to show fishing activity (number of trips observed in each grid square) for mobile gear types (e.g., trawls, dredges, and purse seines) and stationary gear types (e.g., gillnets, hand lines, longlines, pots and traps). These maps (Figures 20 and 21) were overlaid with AIS data on fishing vessel speeds using a threshold of < 5 knots to show stationary fishing.”



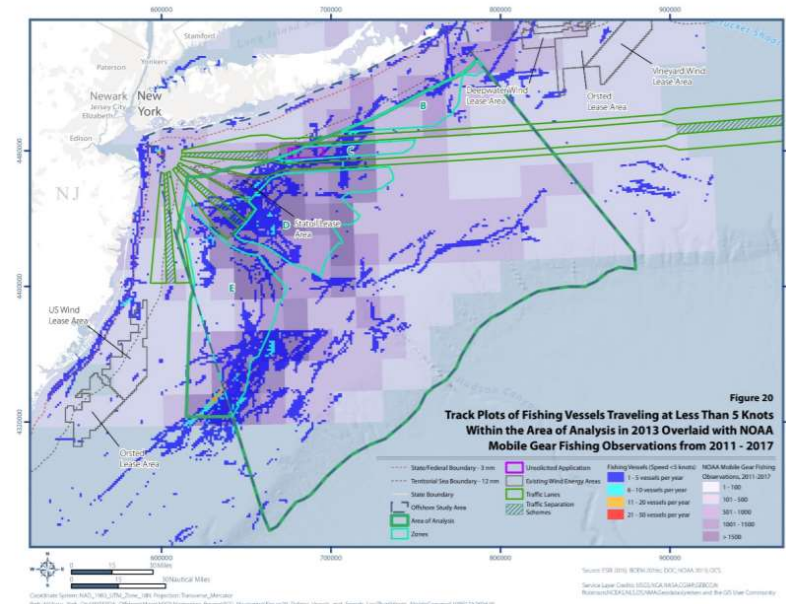
**Figure 19. Track Plots of All Fishing Vessel Traffic Within the Area of Analysis in 2013**

Source: ESRI 2010; BOEM 2016c; DOC; NOAA 2013, OCS



**Figure 20. Track Plots of Fishing Vessels Traveling at Less Than 5 Knots Within the Area of Analysis in 2013 Overlaid with NOAA Mobile Gear Fishing Observations from 2011–2017**

Source: ESRI 2010; BOEM 2016c; DOC; NOAA 2013, OCS



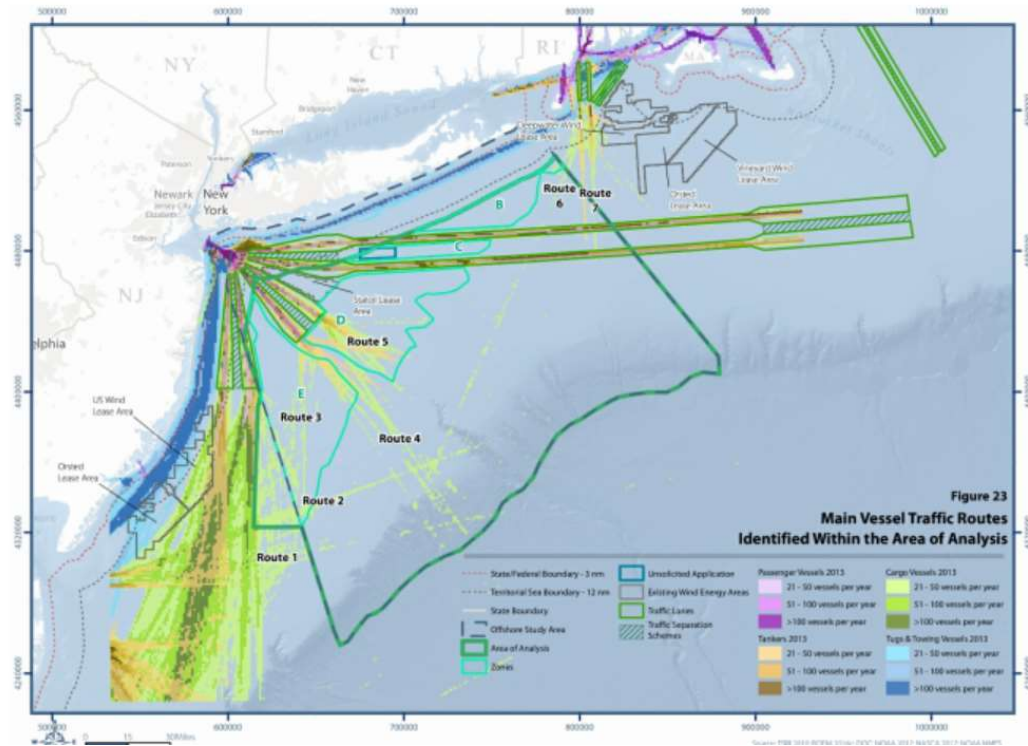
As shown in the figures below from the NYSEDA report, RCG then used the combined vessel data to identify seven main routes through the study area, which is similar geographically to the NNYB PARS study area, based on a vessel density of > 21 vessels per



year and identified eight “gates” on those routes that were used to identify the types, numbers and size of vessels using the routes.

**Figure 23. Main Vessel Traffic Routes Identified Within the Area of Analysis**

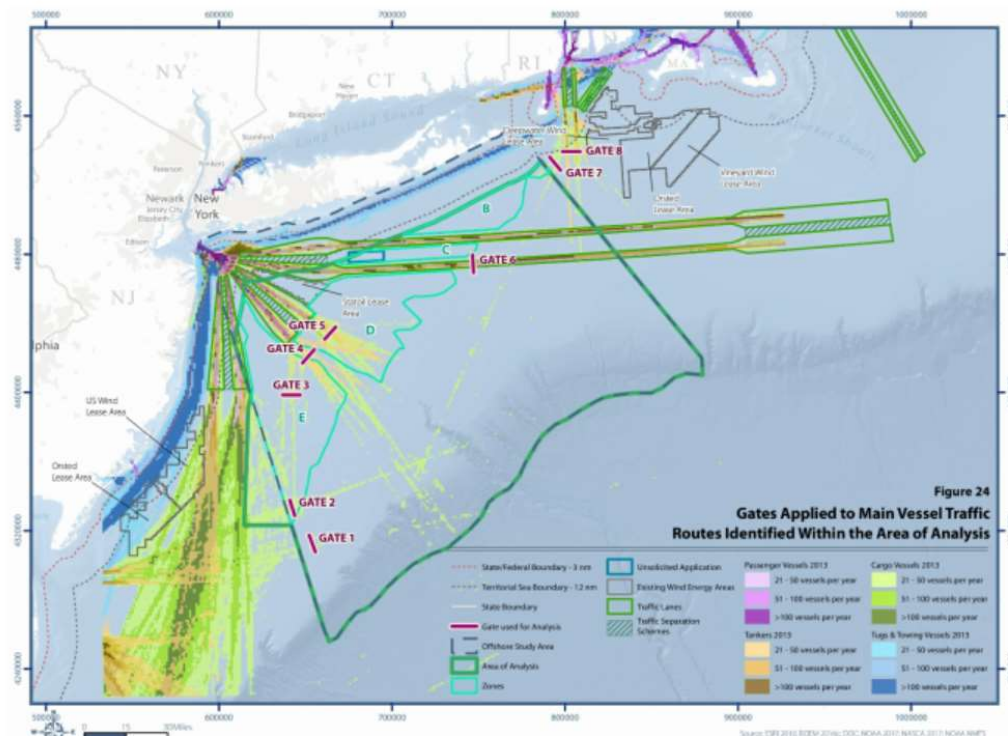
Source: ESRI 2010; BOEM 2016c; DOC; NOAA 2012; NSACA 2012; NOAA NAFS 2013; OCS



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**Figure 24. Gates Applied to Main Vessel Traffic Routes Identified within the Area of Analysis**

Source: ESRI 2010; BOEM 2016c; DOC; NOAA 2017; NASCA 2017; NOAA NMFS 2013; OCS



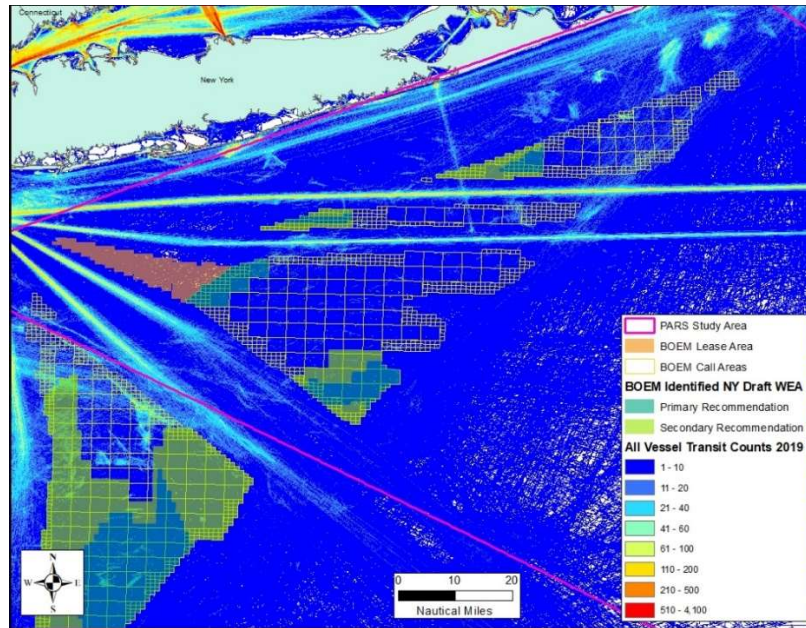
In short, the NYSERDA report concluded:<sup>59</sup>

- Routes 1, 2, 3, 6, and 7 are unlikely be impacted by potential offshore wind development within the study area.
- With respect to routes 4 and 5, the report identified a “very high concentration of large commercial cargo vessels, tankers, and passenger ships” and “AIS data showed a significant amount of fishing vessel activity between routes 4 and 5.”

However, based on a map AWEA created of 2019 vessel traffic (Figure 7) overlaid with the existing Equinor lease, the call areas as well as the primary and secondary WEA recommendations published by BOEM (which were not available at the time the NYSERDA report was completed), it appears to AWEA and NYOWA that those areas were sited by BOEM in a way that already accommodates the concentration of vessel traffic in routes 4 and 5 identified in this 2017 report. Indeed, BOEM reduced the lease area in the final sale notice setting it back from the TSS lanes as it originally overlapped with the lanes. This supports AWEA’s and NYOWA’s request to avoid new vessel routing measures that harm the existing lease area or proposed WEAs.

<sup>59</sup> Ibid. pages 42-45.

**Figure 7. All Vessel Traffic, 2019**



AWEA and NYOWA have also reviewed the materials from the NYSEDA and Responsible Offshore Development Alliance (RODA) transit workshop<sup>60</sup> to gain additional understanding regarding commercial fishing vessel traffic in the study area.

Based on our review of the analyses and data sources mentioned above, AWEA and NYOWA believe the existing fairways and TSSs are sufficient to ensure safe vessel navigation through the Northern New York Bight. To the extent the Coast Guard believes transit lanes are needed to facilitate commercial fishing vessel traffic within and through the call areas, AWEA and NYOWA request that the lanes avoid cutting through the primary and secondary WEAs proposed by BOEM. We believe there is sufficient space to navigate through the call areas while still avoiding restrictions in these areas.

In addition, AWEA and NYOWA request that the USCG work with Equinor and BOEM to assess any lease-area specific vessel navigation needs through the NSRA and COP review processes rather than proposing something unilaterally through the NNYB PARS that would negatively impact this lease area.

### **Commercial Vessel Quality and Crew Proficiency**

Also relevant to the consideration of whether new measures are necessary is the quality of vessels and proficiency of crews that frequent the northern New York Bight, which is generally high, according to a New York Ports And Waterways Safety Assessment (PAWSA)

<sup>60</sup> Materials from the NYSEDA-RODA workshop are available here: <https://www.nyftwg.com/new-york-bight-transit-lane-workshop-2/>

hosted by the USCG in 2016.<sup>61</sup> Although the area examined in the PAWSA was New York Harbor, vessels frequenting the harbor arrive from around the country and the world. The PAWSA found that on a risk scale of 1-to-9, with “1” representing lowest risk to navigation safety, deep draft vessels scored 2. And shallow-draft vessels (such as tugs-and-tows) scored 4.1.

A 2018 Coast Guard-sponsored PAWSA that examined navigation risk in the Hudson River also acknowledged that commercial vessel traffic there, also mostly originating in other U.S. or foreign ports, was of high quality and low risk.<sup>62</sup>

Together the PAWSAs attributed the low risk to navigation represented by these vessels and crews to, among other things:

- Companies have adopted ISO 9000 standards.
- Full inspection program/port state control
- Quality safety management systems
- Vessel Traffic Service
- U.S.-crewed and built double-hulled tank barges and twin-screwed tugs
- Improved technology
- Improved training for crews
- Kings Point, SUNY Maritime, Kingsborough, and MITAGS all provide training to mariners in the area.
- Licensing for operators
- AIS
- Drills and exercises
- Inspection of commercial towing vessels required by 46 CFR Subchapter M

Given the quality of commercial vessels and proficiency of their crews, and their demonstrated ability to repeatedly and safely navigate the crowded confines of New York harbor and the Hudson River, it would appear that the more open waters of the New York Bight should be able to accommodate this traffic without new routing measures in addition to those already in place, even with the presence of offshore wind farms.

### **Finalizing additional lease areas in the New York Bight**

Given the evidence provided above that existing measures are sufficient to ensure safe vessel navigation, AWEA and NYOWA urge the Coast Guard to provide support to BOEM for moving forward with finalizing additional lease areas in the New York Bight.

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<sup>61</sup> Available at: [https://www.navcen.uscg.gov/pdf/PAWSA/Guide/PAWSA\\_New%20York\\_workshop\\_report\\_October\\_2016.pdf](https://www.navcen.uscg.gov/pdf/PAWSA/Guide/PAWSA_New%20York_workshop_report_October_2016.pdf)

<sup>62</sup> Available at: [https://www.navcen.uscg.gov/pdf/pawsa/WorkshopReports/Hudson\\_River\\_PAWSA\\_Workshop\\_Report\\_FINAL\\_VERSION\\_03132018.pdf](https://www.navcen.uscg.gov/pdf/pawsa/WorkshopReports/Hudson_River_PAWSA_Workshop_Report_FINAL_VERSION_03132018.pdf)



## USCG needs to reconcile NNYB PARS and fairways rulemaking

AWEA and NYOWA urge the USCG to reconcile the fairways rulemaking with the NNYB PARS. In particular, AWEA and NYOWA urge the USCG to consider holistically whether vessel routing measures that may be under consideration in the NNYB PARS eliminate or reduce the need for the proposed fairway through the New York Bight call areas in the rulemaking and vice versa.

As demonstrated in the vessel navigation section above and in AWEA's comments submitted<sup>63</sup> on the fairways advanced notice of proposed rulemaking, the tug and tow traffic that is the justification for the proposed fairway has light vessel density in the proposed fairway. The traffic is instead heavily concentrated along the coast. If a fairway is pursued, AWEA and NYOWA believe it should be narrowed significantly to better reflect actual vessel density, and it should avoid overlap with the draft WEA proposed by BOEM along the western border of the Hudson North call area in the NNYB PARS study area. The USCG also needs to consider if the fairway is proposed whether it could also facilitate transit for other types of vessels through the call areas and, therefore, whether any additional routing measures are even needed. On the flip side, the USCG needs to consider whether routing measures under consideration in the NNYB PARS would eliminate the need for the proposed fairway in the parallel proceeding.

Reconciling these different proceedings would help ensure a balance with other reasonable uses of the waterway, including offshore wind deployment. One of the reasons it is important to consider the impact of each proceeding on the other is because of the potentially significant impact of the proposed fairway on the New York Bight call areas. In AWEA's comments filed in the fairways rulemaking, AWEA included calculations of the percent area of the call area that would be eliminated, the acreage, and the impact on deployment. Impacts range from 10% to 35% of the call areas and total potential deployment impact is more than 3,800 MW.

| Call Area                                 | Total Area (Acres) | Area Impacted by Fairways (Acres) | Portion of Call Area Lost due to Fairways | Offshore Wind Development Impact (MW) <sup>64</sup> |
|---|--------------------|-----------------------------------|---|---|
| New York Bight Call Area - Fairways North | 211,834            | 24,676                            | 12%                                       | 359   |
| New York Bight Call Area - Fairways South | 107,103            | 37,203                            | 35%                                       | 542   |
| New York Bight Call Area - Hudson North   | 590,668            | 119,786                           | 20%                                       | 1,745   |

<sup>63</sup> AWEA's comments are available at: <https://beta.regulations.gov/document/USCG-2019-0279-0021>

<sup>64</sup> Ratio of MW/acre estimate comes Wood Mackenzie's recent study *Economic Impact Study of New Offshore Wind Lease Auctions by BOEM*, which assumes a capacity density of 3.6 MW per square kilometer, equal to roughly 15 kW per acre. The study is available at: <https://www.noia.org/wp-content/uploads/2020/08/Offshore-wind-economic-impact-analysis-white-paper-final-1.pdf>

|   |         |               |     |              |
|---|---------|---------------|-----|--------------|
| New York Bight Call Area - Hudson South | 825,512 | <b>81,776</b> | 10% | <b>1,191</b> |
|---|---------|---------------|-----|--------------|

AWEA also calculated the lost economic activity that would result from finalizing the fairway through the New York Bight as proposed. As the chart below show, it would result in nearly \$15 billion in lost investment.

| Call Area                                 | Offshore Wind Potential Lost from Proposed Fairways (MW) | Capital Investment |
|---|--|--------------------|
| New York Bight Call Area - Fairways North | <b>359</b>   | \$1,402,039,000    |
| New York Bight Call Area - Fairways South | <b>542</b>   | \$2,113,797,000    |
| New York Bight Call Area - Hudson North   | <b>1,745</b>   | \$6,805,991,000    |
| New York Bight Call Area - Hudson South   | <b>1,191</b>   | \$4,646,342,000    |

Finally, while New York can procure electricity from offshore wind farms outside of the New York Bight, the impact of the proposed fairways on leasing in the New York Bight is significant, with lost production capacity totaling 43 percent of the state's long term target for offshore wind.<sup>65</sup>

### **Analysis and recommendations on turbine spacing to facilitate vessel transit through a wind farm and USCG search and rescue should be left to project specific NSRAs and COP reviews**

AWEA and NYOWA believe the proper place for considering turbine spacing issues and USGC search and rescue (SAR) needs is in project specific NSRAs and COP reviews. Neither the PWSA nor USCG regulations or policy require consideration of these issues in PARS. Considering these issues in project specific reviews allows for tailoring solutions based on specific lease areas, vessel traffic and other measures that vary by location in the New York Bight. And, while we recognize these issues were considered in MARIPARS, there were unique circumstances, such as several adjacent lease areas and competing proposals from stakeholders, which are not present in the NNYB PARS.

However, should the USCG decide to consider these issues in the NNYB PARS anyway, AWEA and NYOWA provide the following input. In MARIPARS, after thorough analysis, the USCG concluded that 1x1 nm turbine spacing and uniform grid layout across the adjacent

<sup>65</sup> Based on AWEA's calculations, the proposed fairways would reduce the potential capacity by more than 3,800 MW, with impacts to individual call areas of between 10 percent and 35 percent.

lease areas will “maximize safe navigation within the MA/RI WEA”<sup>66</sup> and that “formal or informal vessel routing measures would not be required as such a grid pattern will result in the functional equivalent of numerous navigation corridors that can safely accommodate both transits through and fishing within the wind energy area.”<sup>67</sup>

While AWEA, NYOWA and our members concur with the USCG’s thorough analysis and conclusions in the MARIPARS, we caution against a presumption that the same uniform spacing and layout in the New York Bight is workable or necessary to ensure safe navigation in the NNYB PARS. As November 19, 2019, press release accompanying the Joint Developers Proposal and Supporting Analysis proposing the 1x1 nm proposal, “The proposal is the result of the distinct solution and response to specific challenges in New England and would not be applicable to offshore wind leases in other geographies where challenges are different.”<sup>68</sup>

In addition to the numerous vessel routing measures already in existence in the New York Bight area and cited earlier in these comments, among the key differences in this area vis-à-vis New England that should lead to a rejection of a 1x1 nm uniform grid spacing recommendation in the NNYB PARS are:

- The existing lease area and proposed lease areas have generally less acreage and narrower widths than the adjacent lease areas in New England, which should facilitate easier transit around the areas to the extent that turbine spacing does not facilitate transit through for some vessels.
  - For example, the adjacent Massachusetts/Rhode Island lease areas are roughly 62 nm across roughly northwest to southeast and roughly 16-29 nm southwest to northeast depending on point of measurement.<sup>69</sup>
  - By contrast, the primary areas in the Hudson North call area range from roughly 4.5-8.8 nm west to east and 8-10 nm north to south at their widest points.
    - The secondary area in Hudson North is slightly longer north to south at 12 nm but the same west to east at 8.8 nm.
  - The primary areas in Fairways South and Fairways North are even smaller.
    - Fairways South
      - Primary area is roughly 9 nm by 1.5 nm.
      - Secondary area is roughly 12.5 nm by 3.5 nm.
    - Fairways North

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<sup>66</sup> USCG, Final MARIPARS report, page 32. Available at:

[https://www.navcen.uscg.gov/pdf/PARS/FINAL\\_REPORT\\_PARS\\_May\\_14\\_2020.pdf](https://www.navcen.uscg.gov/pdf/PARS/FINAL_REPORT_PARS_May_14_2020.pdf)

<sup>67</sup> <https://www.federalregister.gov/documents/2020/05/27/2020-11262/port-access-route-study-the-areas-offshore-of-massachusetts-and-rhode-island>

<sup>68</sup> Available at: <https://www.vineyardwind.com/press-releases/2019/11/19/new-england-offshore-wind-leaseholders-submit-uniform-layout-proposal-to-the-us-coast-guard>

<sup>69</sup> Measurement calculated using the linear measurement tool in the Mid-Atlantic Ocean Data Portal. Available at: <https://portal.midatlanticocean.org/>

- Primary area is triangle with sides of approximately 4 nm, 7 nm and 5.5 nm.
- Secondary area is a triangle with sides of approximately 6 nm, 15 nm and 14 nm.
  - And the existing lease area is nearly a triangle with sides of roughly 8 nm, 24 nm and 20 nm and a tip only 1.8 nm wide. This lease area is already isolated with regulated traffic schemes on two sides and potentially on the third side if the proposed fairway is finalized as proposed.
- The lease area and proposed lease areas are generally not contiguous, which, again, should facilitate transit around the areas to the extent that turbine spacing does not facilitate transit through for some vessels.

The above data demonstrates the significant differences in geography between the MA/RI lease areas and those in existence and under consideration in the New York Bight.

With respect to USCG SAR operations, AWEA and NYOWA believe that SAR operations should be assessed based on individual lease areas and WEAs rather than proposing uniform adoption of 1x1 nm spacing and grid layouts. As noted above, given the lease and draft WEA shapes in the New York Bight, their relatively narrow width, and the limited proximity of proposed areas to each other, AWEA and NYOWA believe the conditions in the New York Bight are quite different than with the adjacent lease areas off the coasts of Massachusetts and Rhode Island with respect to SAR. And, therefore, any recommendations on layout and spacing should be made during USCG engagement with developers and BOEM on project specific NSRAs and COP reviews.

### **Potential radar related impacts are well-understood as are potential mitigation options**

While some commenters in other USCG PARS proceedings have raised concerns about potential impacts from offshore wind facilities on marine radars, studies to date suggest the impacts are not significant, are well-understood and there are measures that can be implemented to reduce potential impacts.

The USCG's final MARIPARS report accurately summarizes these issues. The final MARIPARS notes that various factors play a role in potential marine radar impacts noting, "The potential for interference with marine radar is site specific and depends on many factors including, but not limited to, turbine size, array layouts, number of turbines, construction material(s), and the vessel types."

Further, the final MARIPARS summarizes potential impacts including radar clutter, radar saturation, and radar shadowing. The USCG notes however, that, "Vessels have different types of radar with varying capabilities. For example, radars that are off-center, or obstructed by railings, antennas, masts and the like are more likely to detect objects falsely. Additionally, radar operator proficiency plays an essential role in a radar system's ability to properly detect targets in and around a wind farm."



Importantly, the report concludes that, “The UK studies also show that additional mitigation measures, such as properly trained radar operators, properly installed and adjusted equipment, marked wind turbines and the use of AIS, enable safe navigation with minimal loss of radar detection.”

The final MARIPARS discussion on radar issues is also consistent with the USCG’s own conclusions regarding the 130 turbine Cape Wind project.<sup>70</sup> Notably, with respect to Cape Wind, the maximum distance between the turbines was 0.54 NM, which is narrower spacing than the projects with larger turbines being constructed today are proposing. Yet, even with this narrower turbine spacing, the USCG found the impacts to marine radar were manageable and vessels could safely navigate within the vicinity of the wind farm. The Coast Guard position in 2009 applies just as well in 2020: “Affected waterways users may need to adjust somewhat to account for navigating within, and in the vicinity of, the proposed wind farm. Nevertheless, vessels operating within or near the proposed wind farm should be able to do so safely even in restricted visibility.”

### **Uncharted and informal anchorage areas**

AWEA is concerned by the reference in the notice of study regarding “potential conflicts or disruptions in uncharted or informal anchorage areas.” As AWEA noted in our prior request for a public hearing, we cannot comment on uncharted or informal anchorage areas when we do not know how many exist, where they are, the standard for determining their location, and by whom such locations are determined. Insights on these questions would be appreciated and an explanation of how these can be considered in the study when there is not a formal opportunity for many stakeholders to be aware of and comment on them.

AWEA would be concerned if the USCG planned to take action to formalize such areas should they interfere with the value of existing lease areas when leaseholders had no awareness of their existence in BOEM auctions or during subsequent project and COP development since they are by definition uncharted and informal.

### **Benefits of U.S. offshore wind and state procurement goals need to be considered when addressing vessel navigation needs**

The U.S. offshore wind industry is on the verge of significant growth. A balanced, flexible, project-specific approach to mitigating potential impacts can also better balance the need to ensure safe navigation with state demand for offshore wind and the economic and environmental benefits that will result.

There are 26,000 megawatts of offshore wind potential in the lease areas BOEM has auctioned in the Northeast and Mid-Atlantic. This includes 13 offshore wind projects that have secured commitments for buying electricity from those facilities totaling more than 9,000 megawatts of capacity by 2026. In just 2019 alone, states cumulatively increased

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<sup>70</sup> Available at: <https://www.boem.gov/sites/default/files/renewable-energy-program/Studies/USCGRADARfindingsandrecommendationsFINAL.pdf>

their targets for offshore wind by more than 16,000 megawatts. State targets total more than 29,000 megawatts by 2035.<sup>71</sup>

Building on the initial 42 MW deployment of offshore wind in the U.S.<sup>72</sup> will provide a variety of economic, employment, infrastructure, manufacturing, and environmental benefits. Harnessing America's offshore wind resources will create tens of thousands of highly skilled, well-paying U.S. jobs, revitalize ports and coastal communities, improve national security, and deliver vast amounts of reliable energy to America's biggest population centers.

A March 2020 study published by AWEA<sup>73</sup> finds that deploying up to 14,000 MW of offshore wind over the next five years will result in up to 45,000 jobs and up to \$14.2 billion of annual economic output with nearly double that by 2030.<sup>74</sup> A study by the Workforce Development Institute found that 74 different occupations, including electricians, ironworkers, and welders are needed during the various stages of planning, development and operations of offshore wind farms.<sup>75</sup>

The offshore wind industry will also support many jobs for U.S. mariners, including on environmental, geotechnical and geophysical survey vessels, supply vessels, crew transfer vessels, tugboats, and cable laying vessels, among others.

The USCG should not put at-risk the ability of states to achieve their public policy and economic goals by recommending broad, unnecessarily restrictive vessel routing measures.

## Conclusion

In the view of AWEA and NYOWA, additional routing measures should be a last resort to facilitate navigation safety, after all of the current regulations applicable to the New York Bight are reviewed and revised as necessary, and after VTS coverage is revised if necessary.

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<sup>71</sup> U.S. Wind Industry Annual Market Report for the Year Ending 2019. American Wind Energy Association. Available at: [https://www.awea.org/resources/publications-and-reports/market-reports/2019-u-s-wind-industry-market-reports/amr2019\\_executivesummary](https://www.awea.org/resources/publications-and-reports/market-reports/2019-u-s-wind-industry-market-reports/amr2019_executivesummary)

<sup>72</sup> The nation's first commercial offshore wind project the Block Island Wind Farm, came online in December 2016. Developed by Deepwater Wind, now Ørsted US Offshore Wind, the Block Island Wind Farm is a 30 MW project with five turbines located three miles off the coast of Block Island, Rhode Island. In addition, The Coastal Virginia Offshore Wind Farm, a 2 turbine, 12 MW project 27 miles off the Virginia Coast was installed in 2020. Additional information available here: <https://www.dominionenergy.com/company/making-energy/renewable-generation/wind/coastal-virginia-offshore-wind>

<sup>73</sup> *U.S. Offshore Wind Power Economic Impact Assessment*, American Wind Energy Association, March 2020. The AWEA report also finds deploying 30,000 MW of offshore wind by 2030 will result in up to 83,000 jobs, up to \$57 billion of cumulative investment in the U.S. economy, and up to \$25 billion in annual economic output. available at: [https://supportoffshorewind.org/wp-content/uploads/sites/6/2020/03/AWEA\\_Offshore-Wind-Economic-ImpactsV3.pdf](https://supportoffshorewind.org/wp-content/uploads/sites/6/2020/03/AWEA_Offshore-Wind-Economic-ImpactsV3.pdf)

<sup>74</sup> By 2030, the benefits will jump to up to 83,000 jobs and \$25 billion in annual economic output.

<sup>75</sup> New York and the Jobs of the Offshore Wind Industry (Spring 2017) at 3, available at: <https://wdiny.org/Portals/0/New%20York%20State%20and%20The%20Jobs%20of%20Offshore%20Wind%20Energy%20WDI2017.pdf?ver=2017-05-03-150746-023>



We also want to reiterate our request that a draft NNYB PARS report be offered for public comment, and that the Coast Guard host public meetings to discuss the contents of the draft report prior to finalizing.

Thank you for your careful consideration of the issues raised in this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Vinson".

Tom Vinson  
Vice President,  
Policy & Reg Affairs  
AWEA

A handwritten signature in black ink, appearing to read "Laura Smith Morton".

Laura Morton  
Senior Director,  
Offshore Wind  
AWEA

A handwritten signature in black ink, appearing to read "Joe Martens".

Joe Martens  
Director  
NYOWA